1884

SYLLABUS OF LECTURES

AND

REGULATIONS

FOR THE

ORGANIZATION AND MANAGEMENT

OF

County Model Schools.

AUTHORIZED BY THE EDUCATION DEPARTMENT OF ONTARIO,
AUGUST 14TH, 1884.

TORONTO:
PRINTED BY THE "GRIP" PRINTING AND PUBLISHING CO.
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REGULATIONS RESPECTING COUNTY MODEL SCHOOLS.

Approved by the Lieutenant-Governor in Council, August 14th, 1884.

1. The County Board of Examiners for each county or group of counties shall set apart at least one Public School for the professional training of Third Class Teachers, subject to the approval of the Education Department.

2. The requisites of a County Model School shall be as follows :—

(*a*) One room in addition to those required for ordinary school purposes, either in the same building or elsewhere, to be provided by the Trustees.

(*b*) Such full and complete equipment as is now required for the fourth form of a Public School.

(*c*) A Principal holding a First Class Provincial Certificate, with three assistants holding at least Second Class Provincial Certificates.

3. The teachers in training shall attend regularly and punctually during the whole Model School term, and shall be subject to the discipline of the Principal, with an appeal, in case of dispute, to the Chairman of the County Board of Examiners.

4. The Principal shall report at the close of the session the status of each teacher in training, as shown by the daily register.

5. The teachers in training shall be subjected to an examination in practical teaching at the close of the session, and also to a written examination on papers prepared by the Department.

6. In any county where there are two or more Model Schools the County Board shall assign to each, such number of applicants as the capacity of the school will permit; and in cases where there may be a deficiency of room in any Model School to accommodate all the applicants, the County Board may give preference of admission to such candidates as have gained the highest number of marks at the non-professional examination for Third Class Certificates.

7. Boards of Trustees are authorized by resolution to require a fee of not more than five dollars to be paid by each teacher in training.

8. There shall be one session of thirteen weeks in each Model School during the year, beginning on the second Tuesday in September.

9. Each Model School shall be visited at least once during the session by the Departmental Inspector.

COURSE OF STUDY.

The work of County Model Schools is to give to the student-teachers such an insight into the principles of education and into the theory and practice of teaching as will enable them to organize, govern, and teach a school efficiently. It embraces :—

I. *Principles of Education.*—School organization, management, discipline, methods of instruction, and practice in teaching.

II. *Physiology and Hygiene.*—(*a*)—Laws of health, temperance, cleanliness, hours for study, rest, recreation, and sleep. (*b*)—Heating and ventilation of the school room. (*c*)—Functions of the brain, eye, stomach, heart and lungs.

III. *Music, Drawing and Calisthenics.*—It will be impossible in the short term of the Model School to do more than teach the simplest elements of music. However, enough can be done to enable the student teacher to conduct classes in scale notation and in simple songs. In drawing and calisthenics the course prescribed in the Syllabus can easily be mastered. These subjects are not compulsory, but if taken up due credit will be given for work done in them in awarding certificates.

IV. *Review of Non-Professional Work.*—It is very desirable that the students should be required to review and supplement their knowledge of the principal subjects on the Public School

curriculum, as composition, grammar, arithmetic and literature. For this purpose the Principal might give a few exercises in these subjects during the term, and by oral or written examinations test the students' knowledge of matter as well as methods of instruction. Literary work should not be entirely divorced from professional training.

V. *School Law.*—A knowledge of school law, so far as it relates to duties of teachers and pupils.

HINTS ON MANAGEMENT.

First Section of Term—Two Weeks.

I. *Opening of School.*—In opening the Model School the Principal should explain to the teachers the organization and classification of the Public School with which it is connected; the necessity of observing carefully the methods of teaching practised by himself and assistants, the *points* on which they are marked in the Training Register, the importance of careful preparation for each day's work; the necessity of regularity and punctuality, with such other hints in regard to their deportment towards each other, towards the teachers on the staff, and the pupils with whom they come in contact, as may be considered requisite.

II. *Teaching by Principal.*—For the first two weeks of the session the Principal should teach, in the separate room provided for this purpose, those subjects which he intends the student teachers subsequently to begin with. This is preferable to an introductory course of lectures. In teaching a class as above, the Principal should first lay clearly before the students the plan of the lesson, and illustrate this plan by his method of teaching. He should also require them to take notes of his methods, and in the "criticism" hour these notes will furnish a basis for many practical hints. In this way—say ten lectures—combined with illustrative teaching, may be given on the best method of teaching reading, arithmetic, spelling, and geography to a primary class. During this time the student teachers should not be required to visit the different departments of the Public School for *observation*, as no person can observe intelligently, or with profit, until he has first some idea of the object to be attained by the teacher.

III. *Teaching by Students.*—The student teachers having observed and taken notes of the Principal's methods of teaching, are now prepared for actual teaching, as well as for more extended observation elsewhere. It will be well, therefore, during the second two or three weeks of the session to employ them in teaching a class as above, in the separate room used for the purpose, the subjects previously taught in their presence by the Principal.

IV. *Observation.*—The Principal should next prepare the student teachers for taking observations in the different rooms set apart for training purposes. They should have learned at least by this time that no lesson can be well taught unless both the *matter* of the lesson and the *method* of presenting it to a class have been carefully considered.

The assistant teachers should explain, in presence of the student teachers, the purpose and plan of the lesson to be taught, before they begin to teach. Attention should also be called to *points* in the progress of the lesson, and the work should be summarized at the close. The student teachers should not be mere visitors in a room, but should observe *methods* of teaching and *discipline.* They must therefore be taught to observe intelligently.

The following hints on "observation" are suggested:—

1. Matter.

(1) Whether suitable to the class; proper amount for one lesson; whether exercising observation, conception, reason, or all of these.

(2) Lesson—whether bearing on one point; into what heads divided.

(3) Whether in a lesson involving a moral lesson, the proper applications are made.

2. Method.

(1) Whether the *purpose* of a lesson was properly outlined at the beginning.

(2) Whether the connection between the lesson and previous work was shown when possible.

(3) Whether the error of *telling* too much was guarded against.

(4) Whether good illustrations were used, specimens distributed, and diagrams drawn.

(5) Whether *appropriate* and *definite* questions were given

(6) Whether the black-board was used, and new terms written upon it.

(7) Whether errors in answering were thoroughly corrected and special attention given to pupils who were backward.

(8) Whether pupils were allowed sufficient time to think.

(9) Whether the attention of all the class was secured or of only a *few forward* pupils.

(10) Whether the lesson was properly summarized.

3. The Class.

(1) Whether respectful, attentive, interested, and, if so, how secured.

(2) Whether pupils seemed weary, if so, why?

(3) Whether likely to carry away the lesson as a whole.

Each student should be required to enter his daily observations upon a sheet similar in form to that given below:—

Name of assistant teacher.....

Date.....

Subject of lesson .....

Notes by student teacher as follows:—

.....

.....

.....

.....

Signature of Student.

These "observations" should be submitted to the Principal for consideration during the "criticism hour," who will find ample material in the notes made, and in the discussion of the more theoretical part of the course, such as "management, discipline, organization," etc., to occupy all the time at his disposal.

SECOND SECTION OF TERM—THREE WEEKS.

Observation and Class Teaching.—During this section of the term one-half of each day should be spent by the students in the Model School room:—

1. In observing class teaching by the Principal.

2. In class teaching before the Principal and their fellow-students.

3. In criticisms. During the "criticism hour" the students should be required individually to read their notes with reasons, and all should be encouraged to express their opinions freely; the Principal directing the discussion and closing the criticisms.

During the second half of the day the students should be engaged in observing teaching in the different rooms and in taking notes. In order to secure uniformity and definiteness, the following form is recommended:—

Report of lesson on.....

Taught by .....

The faults most worthy of notice were:—

1. Your position.....

2. The plan of lesson.....

.....

3. Your management.....

.....

4. Your language was.....

for instance.....

5. In energy you.....

6. Your mode of questioning was.....

for instance.....

Besides the above, other matters worthy of criticism should be reported.

Date..... *Assistant Teacher*.....

The assistant teacher should make entries on the *form* during the progress of the lesson, and at the close hand it to the student teacher, who should hold himself ready to be criticised on the points noted, by the Principal, whenever necessary. The marks assigned by the assistant teacher for the lesson should be given immediately after the lesson is concluded, and may be communicated to the student teacher, at the option of the Principal. All lessons should be assigned to the student teachers by the Principal, on consultation with the assistants in whose rooms the lessons are to be taught, and a record kept of each lesson in the Training Register, so as fairly to afford equal practice in every subject in the Public School curriculum.

Third Section of Term—Seven Weeks.

I. *Teaching by Students in the Divisions.*—The student teacher having already seen the Principal teach a number of subjects; having taught the subjects himself under the direction and criticism of the Principal; having *observed* how classes are taught by the assistant teachers; and having some idea of the "matter" and "method" of a lesson, should now be able to take charge of a class in the subjects already illustrated. As preliminary to this step, the lesson to be taught should be assigned the previous day, and thoroughly prepared. The assistant teacher, with whose class the student is entrusted, should leave him as much as possible to his own resources, and should take notes for subsequent entry in the Training Register. Assistant teachers should not be reticent in reporting criticism, particularly if the work has been badly done. The criticism should be *thorough, definite, just* and *kind.*

II. *Number of Lessons to be taught by Students.*—It is desirable that not less than thirty lessons shall be taught by each student. By the course suggested, at least seven weeks will be available for teaching in the different divisions. Taking twenty students as the average number in a Model School, and allowing one half-hour lesson per day to each student, we have ten hours per day for teaching by the student. Taking four divisions as the number used for Model School purposes, with a senior and junior section in each division, we have eight classes for ten hours of teaching, or an average of one hour and a quarter for each class during each day for seven weeks. When the number of students exceeds twenty, more than four divisions should be used if possible. The students should be properly distributed among the different rooms, and while one teaches, the others will observe and take notes. Lessons by students should not immediately follow each other. It is also strongly recommended that the students assigned to a division should remain a week in one room. By this means the corrections made by the assistant teachers will be more effective, the students and the pupils will become better acquainted, there will be less change, and consequently the regular work of the division will be less disturbed.

Fourth Section of Term—One Week.

Review and Examination.—Students should not be required to do any school work during this week, but should be allowed to review the work of the term.

SYLLABUS OF LECTURES.

Opening Lecture by the Public School Inspector.

It is very desirable that the Inspector should be present at the opening of the Model School and address the students.

In his address the following should be considered:—

(1) The importance of the teacher's work in the school room and in the school section.

(2) His opportunities for doing good.

(3) The need of giving proper attention to his own health.

(4) The need of availing himself of every means whereby he may rise in his profession.

(5) Proper attention to the instructions given by the Principal of the Model School and by the assistants.

(6) Careful attention to teaching witnessed by students.

(7) Proper deportment during the session.

(8) Preparation of lessons assigned.

(9) Necessity for continuing his professional reading.

(10) Reward of the faithful teacher.

Lecture I.

Characteristics of a Good Teacher.

I. *Mental Characteristics.*

1. Professional spirit.—2. Sympathy.—3. Tact.—4. Earnestness.—5. Energy (not demonstrative).—6. Enthusiasm.—7. Hopefulness.—8. Patience.—9. Watchfulness.—10. Definiteness.—11. Thoroughness.

II. *Characteristics of Manner.*

1. Quietness.—2. Cheerfulness.—3. Calmness.—4. Self-possession.—5. Uniformity of temper.—6. Politeness.—7. Kindness.

III. *Habits.*

1. Speaking in a low tone.—2. Orderliness.—3. Punctuality.—4. Cleanliness.—5. Neatness.

Lecture II.

Primary Reading.

I. There are two steps in learning to read well:—

(*a*) Word recognition.

(*b*) Expressive reading.

II. *Methods of teaching reading.*

1. Expressive reading can only be taught to junior pupils by giving them good examples for imitation. It should be taught to senior pupils by giving them proper rules for pausing, emphasis, inflection, etc.

2. Word recognition may be taught by either of the following methods:

(*a*) The alphabetic, or naming method.

(*b*) The word, or "Look and Say" method.

(*c*) The phonetic method.

(*d* The phonic method.

3. The alphabetic method has been generally discarded, because in most cases the names of the letters in a word are in no sense suggestive of the sound of the word itself. The only plea urged for its use is that it teaches spelling, by compelling pupils to spell words before naming them. It does this only to a limited extent, and in direct opposition to the recognized rule that spelling should be taught by reading, instead of trying to teach reading by spelling.

4. The phonetic method requires a new alphabet with a letter to represent each sound in the language, and is therefore impracticable with our present alphabet.

5. The word, or "look and say" method gives the name of the whole word to the pupils. The objections to its use are:—

(*a*) It depends too much on the memory.

(*b*) It does not make the pupils do independent work soon enough.

(*c*) The pupils can make very little, if any, use of knowledge already gained in acquiring more.

(*d*) It makes the pupil a receptive rather than a constructive agent.

(*e*) It does not compel such scrutinizing inspection of words as to lead to correct spelling.

6. If the English alphabet had but one sound for each letter and only one letter to represent each sound, the phonic method alone would be the best plan for teaching children to recognize new words. It gives the pupil the sound of the letters and trains him, first, to combine these sounds to form words; and secondly, to recognize new words by sounding the letters which form them.

7. To avoid the mental confusion of children, teachers should use a perfectly self-consistent alphabet, with only one sound for each letter, during the first five or six weeks of a child's experience in learning to read. By using the short sounds only of the vowels a very large number of words may be formed.

8. The Phonic, combined with the word method, will be found to lead to the best results in teaching word-recognition.

III. *General Suggestions.*

1. Use slates and the black-board in teaching reading from the beginning.

2. Let the pupils write script from the first.

3. Only teach the sounds of letters as they are used. It is a great mistake to teach the alphabet as a whole, either by names or sounds, before putting these to a practical use.

4. Pupils should not be allowed to try to read a sentence until they know all the words it contains.

5. Simultaneous reading should only be allowed when the pupils are imitating the teacher, or when they are reciting something that has been committed to memory.

6. Bright pupils are certain to engross most of the teacher's attention so long as they are in the class. Dull pupils should get most teaching. In order to secure this result, when the new work of a lesson has been taught give review test words or sentences, and let those who read them first go to their seats and work there.

7. Backward pupils rely on those more advanced to lead them, and it is of the utmost importance that they should be compelled to make independent efforts. It is therefore very much better to let the pupils whisper the new words or sentences to the teacher after he has written them on the black-board.

8. Pupils should be required to do a great deal of word-building. The following are illustrations of an infinite variety of problems which may be assigned to them:—

(*a*) When they know the sounds of at, in, ing, on, etc., let them make as many new words as possible by prefixing letters to them.

(*b*) Give them two consonants, one for the beginning and the other for the end of a series of words, and let them form words by writing vowels between them.

(*c*) Give a single consonant, and let the pupils form as many words as they can, beginning or ending with it, and containing the number of letters fixed by the teacher.

(*d*) Write a certain number of letters on the black-board and let the pupils form as many words as possible by using only these letters.

(*e*) If the word method be used it is a good plan to set the pupils to count at their seats how often certain words occur on a certain number of pages.

9. Lessons in reading to primary classes should be brief and lively. Two fifteen minute lessons are much better than one lasting half an hour.

10. Vary the method of conducting the lessons as much as possible.

11. In order to correct or prevent the habit of sounding "a" and "the" separate from the words following them, let the pupils first use them in speaking of some object held by the teacher. He holds up a book, for instance, and the pupils say correctly and naturally "a book," or "the book." They will do so without fail. Then these words should be written on the black-board, and repeated by the class, the teacher pointing alternately to the object and to the written words. It is also a good plan to join such words, as well as adjuncts, by bracketing them when they are written on the black-board.

Lecture III.

Language Lessons.

This subject should form a part of the every-day work in the school-room. It should precede the study of grammar.

Correct forms of speech must be placed before the pupils.

Induce pupils to speak freely.

Talk *with* them rather than *to* them.

Order of teaching.

1. Place some familiar object, as a chair, before the class.

2. Ask pupils to name the object, and tell its use.

3. To name its parts.

4. To describe the different parts, or tell something about them.

5. To tell the use of the different parts, etc.

Hints.

1. Require answers in the form of a sentence.

2. Do not criticize answers.

3. Give correct form, write it on the board, and require class to repeat several times.

4. If pupils cannot form correct sentences, aid them by suitable questions.

5. Endeavour to form correct ideas in the pupils' minds, and then require these ideas to be properly expressed.

6. Take subjects with which the pupils are familiar.

7. In receiving oral answers distinct articulation and correct pronunciation should be required.

8. Answers should frequently be written on the slate.

9. In written answers proper attention should be given to capitals, periods and interrogation marks.

Subjects for lessons.

The different objects in the school room. Color, form, size, weight, etc. Animals, plants and minerals.

Specimens or pictures should always be placed before the class.

Lecture IV.

Composition.

Primary Objects.

1. Correct and free use of language.

2. Correction of common errors of speech.

3. To increase the pupil's knowledge and use of words.

4. Variety of expression.

5. Cultivation of observation, perception, memory, and imagination.

Cautions.

1. Ideas must precede words.

2. Objects and subjects must be furnished to evoke the various powers of the mind, and the pupil must be taught how to accumulate, arrange, and express his ideas connected with them, and finally how to criticize the whole.

3. First exercises must be very simple and constantly repeated.

4. They must be carefully graded.

5. Errors must be corrected, but not criticized at first.

6. Do not expect too much.

The following outline of lessons is suggested :

First Class.

1. Elementary language lessons in this class will serve as preparatory work for the teaching of oral and written compositions.

2. Correction of colloquial errors.

Second Class.

1. Systematic drill in the correction of colloquial errors ; no reasons should be given.

2. Oral and written descriptions of actions and of objects.

3. Recital of the story in the reading lesson by paragraphs, and as a whole.

4. Letter-writing of the simplest kind, giving special attention to form of opening and closing.

Third Class.

1. Correction of colloquial errors continued.

2. Continual training in polite, courteous forms of speech.

3. Elliptical exercises to teach the correct use of saw, seen, did, done, went, gone, etc.

4. Oral and written reproduction of short stories, and subject of reading lessons.

5. Letter-writing.

6. Simple business forms, accounts, and receipts, separate and combined, order for goods, order for money, promissory note, negotiable and non-negotiable.

Fourth Class.

1. Elliptical exercises to teach the correct use of such words as may, can, shall, will, would, should, lie, lay, laid, rise, raise, come, came, sit, sat, set, etc.

2. Oral and written reproductions of stories and lessons on animals and plants.

3. Transposition of stanzas of poetry into prose.

4. Biographical and historical sketches, oral and in writing

5. Letter-writing.

6. Business forms, notes payable on demand, at bank, joint, and several, with and without interest, drafts payable at sight, at time after sight, at time after date, etc.

Fifth Class.

1. Changing passages from the direct to the indirect order, and from the grammatical to the rhetorical order, and *vice versa*. (See Morrison, pp. 75 to 87).

2. Elliptical exercises. Morrison, pp. 88-91.

3. Analytic and synthetic exercises in narrative composition. Morrison, pp. 111-127.

4. Abstracts of reading lessons.

5. Paraphrasing.

6. Business correspondence.

Lecture V.

Grammar.

1. Develop a *sentence* on blackboard.

2. Develop the idea of *subject* and *predicate*.

3. Teach the *use* of words and of phrases in the sentence.

4. *Group* words and phrases around subject and predicate. (Slate exercise.)

5. *Classification* of words according to *use* in sentence.

6. *Names* of these classes, *i. e.*, of the parts of speech.

7. *Definitions* of do.

8. *Sub-divisions* and *inflections* of do. in the same order :— *example, use, comparison* with others, *classification, name, definition,* or *rule.*

No analysis of a sentence should be attempted until the teacher is certain the pupils understand the meaning of the sentence as a whole, and of all the words and phrases. The analysis of complex sentences should be developed from simple sentences, and pupils should be required to change a complex sentence into a simple sentence and *vice versa*. Great care should be taken to guard against merely mechanical analysis.

Lecture VI.

Spelling.

I. *How Spelling is Learned.*

1. Pupils learn to spell through the eye.

2. Correct spelling depends upon seeing with precision.

3. Spelling is learned through reading.

4. The ear may aid in spelling words spelled phonetically, but the eye alone is the best means of learning to spell. (Deaf mutes spell accurately.)

II. *How Spelling is Taught.*

1. As correct spelling depends on accurate seeing; the great aim of the teacher should be to train the pupils to look definitely at all parts of the words.

2. Young pupils should copy largely from primers and from the blackboard.

3. Transcription is the best means for committing a spelling lesson to memory, as it compels the most careful and scrutinizing examination of the words.

4. Pupils should never see words incorrectly spelled.

III. *Testing Spelling Classes.*

1. There are two methods, oral and written. (Although spelling has to be learned through the eye, a knowledge of spelling may be shown orally.)

2. As spelling has to be used practically by writing words, it is undoubtedly best to test spelling classes by making them write the lessons assigned.

3. Writing a word impresses its form much more than spelling it orally.

IV. *Examining Spelling Lessons.*

1. In review lessons and in small classes the teachers should correct the lessons.

2. Pupils may exchange slates, and mark the words wrongly spelled, the teacher spelling the words slowly.

3. Pupils may retain their own slates, and the teacher may call on different pupils to spell the words orally. Those who agree with the spelling given must indicate this by raising their hands before the teacher decides as to its correctness.

4. Slates may be exchanged and the corrections made as in No. 3.

5. While the teacher writes the correct spelling on the blackboard, each pupil may correct his own work, and slates or books will then be exchanged for revision only.

NOTE.—In all cases when slates are exchanged the pupil owning the slate should have the right to appeal against the marking done by his neighbour.

V. *Correcting Errors.*

1. Each pupil should write the words he misses five times to impress their correct forms on his memory.

2. It is better that he should write these words once a day for five days than five times on the same day.

3. He should keep a list of his errors at the end of his dictation book, and copy it occasionally.

4. From these lists the teacher should prepare review lessons.

VI. *General Suggestions.*

1. The teacher should articulate clearly and pronounce correctly when giving words for spelling.

2. Only one trial should be allowed in oral spelling.

3. In oral spelling the divisions into syllables should be marked by a slight pause.

4. Spelling should be taught to a considerable extent by means of composition, in order to give pupils practice in spelling their own vocabularies.

LECTURE VII.

Elementary Arithmetic.

PRELIMINARY REMARKS.

1. Arithmetic is taught for the sake of its *(a)* value in discipline, *(b)* value as knowledge, *i. e.*, its utility in the affairs of life.

2. To secure these VALUES as thoroughly as possible, all arithmetical study is to be a training in thinking; all *merely* mechanical work is to be banished. There must indeed be mechanical drill, but this must be founded on *intuitions* (from material objects).

3. For this training in thinking, *systematic* training in Mental Arithmetic, from first to last, is absolutely indispensable; and, therefore, so far as Arithmetic is concerned, the

principal task of the teacher in the Public School is to practise the children in Mental Arithmetic.

4. At each and every stage Mental Arithmetic must precede, and lead up to, Written Arithmetic.

5. In every stage abstract and applied calculations are to go together; *e. g.*, when a pupil has learned (say) through intuition the combinations of *five*, he is to be practised in "practical problems," involving familiar things of life.

6. In mental work, rapidity, correct language, and logical order of thought and statement must be constantly aimed at.

7. In Mental Arithmetic it is desirable that the teacher should follow the sequence of some book. Otherwise the "course" is likely to be without logical method; desultory problems are of but little use in mental training. At the outset children need no book; when they have advanced to division, and its applications ("analysis"), they may prepare assigned lessons in some text-book. But a book supplies only *type-questions;* many similar questions should be framed by teacher and pupils.

8. In Mental Arithmetic there should be frequent *written examinations*, as well as oral.

A.—*First Stage.*

1. The numbers 1 to 10, inclusive, taught *intuitively* by NUMBER-PICTURES and by counting—these "pictures" being presented through *(a)* dots or points on blackboard, slate, etc., *(b)* arrangement of balls of abacus, *(c)* arrangement of *cubes*, etc., used as counters. *Picture*-Numbers are to be used because the *intuition* of a number of objects in a group is comparatively easy if there is a *symmetrical* arrangement, *e. g.*, the conception of *five* is easier from *this* arrangement

* *
*
* *

than from this * * * * *

2. On the principle which underlies the law of repetition, it will in general be well to make more than one presentation of a Number-Picture, *e. g.*, of *five*:— * * *, * , * *, * *.

3. Practice is to be had in *all the combinations* of the several numbers *(see table below);* and every number is to be

mastered before the next number is taken up. This means *(a)* the *addition* of pairs of numbers, by Number-Pictures in various ways (see above), and by "practical problems," *(b)* subtraction or the resolution of numbers into pairs by similar means, *(c)* the multiplication and division (exact) of pairs, as *e. g.*, three times two are six; the twos in six are three.

NOTE.—*(c) May* be left till the combinations of 20 are learned. PRACTISE IN COUNTING BACKWARD AND FORWARD.

4. Practise in the corresponding written exercises as soon as the children have mastered the mental processes.

NOTE.—The above points are to be kept in view in teaching *every number* and its combinations and partitions till *ten* has been well mastered.

B.—*Second Stage.*

The numbers 11 to 20, inclusive, to be taught intuitively, all the steps given in the first stage being followed. This includes especially

(1) Practise in the addition of two numbers whose sum is not greater than twenty; see table given below. Practical problems as before.

(2) Subtraction. Practical problems.

(3) The multiplication and division of numbers within the above-named limits. This practice means

(*a*) The *multiplication table* of numbers from 1 to 20; this supposes (as before) much "drill," but drill grounded on intuitions.

(*b*) *Division* of the products obtained in (*a*) by an abstract divisor; (*b*) division in the sense of distribution, the converse of the operation in (*a*); in (*a*) the factors are given and the product is to be found; in (*b*) the product is given and the factors are to be found. It cannot be too often repeated that these processes are to be rendered VISIBLE—there must be intuitions through number-pictures.

(*c*) Measurement of the products of the *multiplication table*, *i.e.*, division in the sense of being contained in; *e. g.*, 2 is contained in 4, 6, 8, etc.

(4) Practice in the corresponding written exercises as soon as the children have mastered the processes mentally.

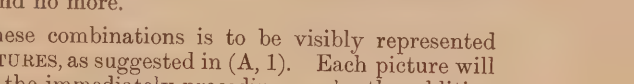
The following table, which exhibits all combinations of numbers from 1 to 20, shews substantially the work to be done in these two stages, and is fundamentally the basis of all combinations.

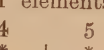
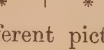
TABLE OF COMBINATIONS OF NUMBERS FROM 1 TO 20.

1	2	3	4	5	6	7	8	9	10
1	1+1	2+1	3+1	4+1	5+1	6+1	7+1	8+1	9+1
		1+2	2+2	3+2	4+2	5+2	6+2	7+2	8+2
11			1+3	2+3	3+3	4+3	5+3	6+3	7+3
	12			1+4	2+4	3+4	4+4	5+4	6+4
10+1		13			1+5	2+5	3+5	4+5	5+5
9+2	10+2		14			1+6	2+6	3+6	4+6
8+3	9+3	10+3		15			1+7	2+7	3+7
7+4	8+4	9+4	10+4		16			1+8	2+8
6+5	7+5	8+5	9+5	10+5		17			1+9
5+6	6+6	7+6	8+6	9+6	10+6		18		
4+7	5+7	6+7	7+7	8+7	9+7	10+7		19	
3+8	4+8	5+8	6+8	7+8	8+8	9+8	10+8		20
2+9	3+9	4+9	5+9	6+9	7+9	8+9	9+9	10+9	
1+10	2+10	3+10	4+10	5+10	6+10	7+10	8+10	9+10	10+10

1. The upper part of the table gives the combinations of the numbers to ten inclusive; the lower part, the combinations of the numbers from 11 to 20 inclusive. The ways of forming 5 are:—4 and 1, 3 and 2, 2 and 3, 1 and 4. In all there are 100 combinations, and no more.

2. Each of these combinations is to be visibly represented by NUMBER-PICTURES, as suggested in (A, 1). Each picture will be formed from the immediately preceding one by the addition of a single point, and will be made up of elements previously mastered, *e. g.*



3. As already suggested, slightly different pictures of the same number will be given, *e. g.*:—for 3,  ; for 4, ; for 5, etc. From 5 we get 6— ; from 6 we get 7—  etc.

4. (*a*) This table includes the usual forms:—1 plus 2, 3, 4, etc.; 2 plus 1, 2, 3, etc.; 3 plus 1, 2, 3, etc.

(*b*) It is applicable to the higher combinations of numbers, *e. g.*, take those of 5; 4+1 leads to 14+1, 24+1, etc.; 2+3 leads to 2+13, 2+23, 2+33, etc.

NOTE.—Call attention to the fact that *thirteen* is three-teen, *i. e.*, 3 *and* ten; fourteen, 4 *and* ten, etc.

C.—*Third Stage.*

1. The genesis of numbers from 1 to 100, inclusive—the method of intuitions being followed as in the preceding stages.

2. Make the pupil familiar with combinations of *tens* as *units ; e. g.,* as in the combinations of five, 4 tens+1 ten ; this by visible and tangible objects. Call attention to the fact that thirty is 3 tens ; forty is four-ty, *i. e.,* 4 tens, etc.

3. Teach the *intermediate* numbers, *e. g.,* 21=2 tens+1 ; 22= 2 tens+2, etc.; 31=3 tens+1, 32=3 tens+2. Give practice in counting backwards and forwards. Give notation and numeration to 100, inclusive.

4. Give practice in the addition of a number of one digit to one of two digits ; the higher number to be exhibited as so many *tens* and *units.* Form *series* of numbers, *e. g.,* give two or three terms, and have the children continue the series, as 12, 14, 16, etc.; 9, 12, 15, etc.; 21, 25, 29, etc.

5. Practice in the subtraction of a number of *one* digit from one of *two* digits. As in the preceding exercises, *intution* is necessary, especially in such cases as 43—7, 62—9, etc.

6. Practise the multiplication table till the pupils have obtained a ready knowledge of it, but, in *every instance* give *by intuition a clear insight into the meaning of each combination ; e. g.,* the meaning of 4 times 7 is 28, must be made perfectly clear by means of the "ball-frame," etc. But this *clear insight* being had, drill till the children can give the *combinations with scarcely an effort of thought.*

In written work the order should be (a) multiplication by a number of one digit; (b) do, by 10 ; (c) do, by a multiple of 10 (d) do, by a number formed of units and tens.

7. Give practice in the division of the products of the multiplication table (as in Stage B, 1 b), (a), by an abstract divisor, *i.e.,* division in the sense of distribution ; and (b), measurement of the *products, i.e., division* in the sense of *being contained in.* In written work the order will be (a), division by a number of one digit ; (b) by 10 ; (c), by a multiple of 10 ; (d), by a number consisting of *tens* and *units.*

8. The children are now prepared to deal formally with (a), the factors of a number ; (b), the factors common to two or more numbers; (c), the G., C., F., of do; and (a) with the multiples of a number ; (b), a multiple of two or more numbers, and (c), the L. C. M. of two or more numbers.

The course of work above exhibited shews, in the main, the

whole course of instruction in elementary arithmetic, and constitutes the basis of all subsequent work. Unless, therefore, the work here outlined has been thoroughly mastered, subsequent progress will be uncertain and unsatisfactory.

D.—*Fourth Stage.*

This stage is mainly a continuation of the preceding stages, which cover the ground of the first seven sections of Mental Arithmetic, Pt. I. Details, therefore, are not necessary. A few hints may be noted.

1. Children must understand the values of numbers before they use them. This is the fundamental principle in the preceding stages, in which intuition has the first place. In Stage D, when intuition is no longer expedient, the numbers should be clearly analyzed into *hundreds*, *tens* and *units*, etc.

2. In written work with larger numbers—*i.e.*, numbers too large for mental operations, note the following points :—

(*a*) Avoid working with *very large* numbers. Don't waste nervous force in drudgery. Long mechanical operations, especially of multiplication with large *factors*, have little practical value. Who needs to multiply millions by millions, or even by hundreds of thousands? Instead of questions involving hosts of figures, give many questions of moderate length, and aim at *accuracy* and *rapidity*.

(*b*) To prevent mere mechanical drudgery, and to awaken the interest which grows out of *intelligence*, every process must be thoroughly explained.

(*c*) As already implied, in mental work insist on good language and logical and concise order of statement; in written work aim at *neatness, accuracy, rapidity.*

(*d*) Some of the tables of weights, measures and money will of course be mastered, and use made of them in "Practical Problems."

E.—*Fifth Stage—Fractional Arithmetic.*

I. Vulgar; II. Decimal.

NOTE.—Vulgar fractions form a principal subject in Mental Arithmetic. Both from common experience and from operations in the preceding stages, the children have become familiar with some of the ideas and nomenclature of Fractional Arithmetic. The formal and systematic instruction is now to begin. Give the *notation* as soon as the conceptions are clearly gained.

1. Begin with the now familiar idea of the *division* of a NUMBER *into equal parts*, the underlying principle in all

teaching of fractions. Show, *e.g.*, that to divide 6 by 3 is to obtain one of the 3 equal parts that compose 6. Show that "to take *one-third* of 6" is the same as "to divide 6 by 3;" there is a change of *name*, but no change of idea or of operation. Give practice in finding $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{6}$, etc., of a number.

2 Lead to the facts that a number has *two halves, three thirds, four fourths,* etc.

3. The children have already learned that *twice* one unit of *any kind,* is *two* units of the *same kind;* three times one unit of *any kind* is three units of the same kind, etc. They are, therefore, now prepared to find $\frac{2}{3}$, $\frac{3}{4}$, $\frac{4}{5}$, etc., of a number; *e.g.*, they find *one*-third of 6 to be 2, and therefore *two*-thirds of 6 to be 4.

4. Lead to the fact that thus to take (*e.g.*) $\frac{3}{4}$ of a number is the same as to take one-quarter of 3 times the number, *i.e.*, to *divide* 3 times the number by 4. Lead to the facts that 3 lbs. divided by 4 is 12 ounces, etc.

5. Show that $\frac{1}{2}$ of a number $=\frac{2}{4}$ of it $=\frac{4}{8}$ of it; that $\frac{1}{3}$ of a number $=\frac{2}{6}$ of it, etc; and that $\frac{4}{8}$ of a number $=\frac{1}{2}$ of it, etc.

6. Now proceed to show that not only a *number* but also a *single thing* may be divided *into equal parts.* Base the instruction on intuitions, by a divided line, rectangle, or other concrete object. Apply the ideas developed in 2, 3, 4, 5, above.

7. Show (*a*) how to change whole numbers into the form of a fraction; (*b*) how *inexact* division gives rise to a mixed number; and *(c) conversely* how a mixed number may be changed into an indicated division, *i.e.*, an "improper fraction."

8. Use ideas of 5, above, to show how to change fractions with different denominators into fractions having a "common denominator."

9. Addition and subtraction.

10. Multiplication and division.

For methods and type-questions, see chapter on fractions in Mental Arithmetic.

II.—Decimal Fractions.

The teaching in Decimal Fractions follows the order observed in vulgar fractions, so that every "rule" in decimals finds its explanation and demonstration in the corresponding rule in vulgar fractions. Guard against rule-of-thumb work; explain every process.

Note.—While special stress has been laid on the necessity of beginning with intuitions for the acquisition and development of the first conceptions in the several stages, it is very desirable that the pupils should pass as soon as possible to the abstract and the general.

F.—*Sixth Stage.*

Application of the foregoing to analysis and to "Commercial Arithmetic."

The unitary method, which has been followed in the simple analysis of the previous stages, is to be followed here. It is to be applied to

1. Solution of "Rule of Three," problems.
2. " Simple Interest.
3. " Profit and Loss, in all its "cases."
4. Other percentage problems.
5. Proportional parts and partnership.
6. Averages.
7. General analysis.

For methods and type-questions under these heads see Mental Arithmetic Part II. and last chapter of Part I.

NOTE.—In this stage the fundamental principles of ratio and proportion, with applications, may be given.

LECTURE VIII.

Geography.

PART I.

I. *Introductory lessons on place, to explain.*

1. Use of, on, around, above, below, beneath, under, etc.
2. Use of terms right, left, middle, centre, corner, etc.
3. Necessity for a standard of distance using :—

(*a*) Measurements in the school-room, inch, foot, yard.

(*b*) Representations on a scale of the top of the desk or table with the places of a few objects marked.

These lessons will prepare pupils for use of maps.

II. *Lessons on animals and plants.*

1. That live on land, in water, fly through the air.
2. That live in hot parts of the earth, in cold parts, in forests, in deserts, in plains, on mountains.

III. *Stories and reading lessons about people who live in other countries.*

In what kind of homes; what they wear, what they eat what they do, etc.

IV. *General knowledge to be gained from observation.*

1. Of land and water, and uses of each.

2. Of air—all around.

3. Of sun, moon and stars, light and heat.

4. Of division of time, hour, day, week, day, night, etc.

5. Of divisions of seasons, spring, summer, etc.

6. Of the terms circle, diameter, circumference, sphere, hemisphere (to be learned from drawing and *form* lessons).

PART II.

I. *Lead pupils by suitable illustrations to a conception of the earth.*

Great ball, moving in the air, around the sun, lighted by sun, surface of land and water, shape, flat appearance, size, motions and results, axis, poles, equator.

II. *By means of maps and blackboard drawings teach natural features of the earth's surface.*

1. Begin with most striking.

2. Observe, describe, name:

(*a*) Forms of land, coast or shore, continent, island, etc.

(*b*) Forms of water, ocean, sea, gulf, etc.

III. *General topography of earth's surface, with special reference to continents and oceans.*

Their positions, relative sizes, boundaries, etc.; using map of the world.

PART III.

I. *Principal land and water forms and political divisions of a single continent.*

1. Blackboard chiefly to be used, maps for reference.

2. Pupils reproduce on slates or blackboard.

3. Pupils draw on slates from maps placed before them.

4. New names to be written upon the board and copied by pupils.

PART IV.

I. *Physical features.*

(*a*) Water-basins, general shape, outlet, etc.

(*b*) Mountains or ridges which bound them.

II. Climate of different parts, and how affected.

III. Character of different animals, including man, as affected by climate.

IV. Different plants as affected by climate.

V. Minerals, where found and why.

VI. Occupations of the people in different parts, and why.

VII. Exports and imports.

VIII. Language, religion and form of government.

IX. Manufacturing and commercial centres.

The political divisions may next be taken up. Other continents in the same way.

Lecture IX.

Object Lessons.

I. *Aims.*

1. The *primary* aim is to develop all the child's faculties by employing them properly in gaining knowledge. The ability to acquire knowledge is better than the possession of knowledge.

The *secondary* aims are:—

(*a*) To correct, extend and apply the child's vocabulary.

(*b*) To give the child additional knowledge.

Note.—Knowledge must not be given to children ready-made. One of the most common blunders is to regard object lessons as mere information lessons. Knowledge should be communicated incidentally in object teaching.

II. *Method of teaching Object Lessons.*

1. It is absolutely essential that every pupil shall investigate independently.

2. Every pupil should have a specimen, if possible.

3. As soon as possible (say in the Senior First Book classes) each pupil should write down the results of his investigations.

4. The teacher should guide the class in making their investigations, by asking such questions as:—

(*a*) What can you learn by looking at this object? by feeling it? by smelling it? etc., etc., thus giving a training in the intelligent use of the means of acquiring knowledge, or:—

(*b*) By writing a scheme on the blackboard, such as:—

Examine your object and tell me its form, size, color, weight, etc., etc. This gives a training in the systematic classification of knowledge.

With complex objects, insects, leaves, etc., attention should be directed to one part at a time.

5. In lessons on form, direction etc., the pupils should draw the forms and lines. Making a perpendicular line once will impress its character on the mind of the pupils more definitely than ten repetitions of a definition.

6. Drawing should be *very largely* used by the pupils in describing the parts of objects in Natural History and Botany, To draw a thing the child must examine it with scrutinizing care.

7. It is a great mistake to think that showing an object to a class and giving some interesting facts relating to its origin, manufacture, etc., is teaching an "object lesson." General information lessons are good, but they are no more like genuine object lessons than reading lessons are.

8. Insist on full statements from the pupils in answering. It is more important in object lessons than in any other subject.

9. Advancement should be made *very slowly* in an object lesson. Investigations with a view to discovery must be made slowly even by experienced adults. Accuracy and not speed should be the aim.

10. While the great aim of object teaching undoubtedly is to strengthen the observant faculties, the faculties that use knowledge should be developed as well as those that gain knowledge. Comparison, judgment, memory, language, and the power to make a practical application of knowledge should be developed gradually from the first lesson.

11. Many teachers err by trying to lead their pupils to discover things outside their stage of mental development.

12. When any quality, or form, or power has been discovered by the pupils as belonging to the object under examination, let the range of its application be extended at once, by calling on the class for the names of other things possessing the same quality, form, power, etc.

13. It is necessary to distinguish very clearly between object teaching and object illustration. In object teaching, the object itself is studied; in object illustration, the object represents something else. An apple may be used to illustrate the meaning of a fraction, and then it is merely representative of a unit or its parts. As the subject of an object lesson, the apple is studied as to its form, parts, construction, etc.; where the seeds are situated, how they are protected, why they are so protected, etc., etc.

NOTE.—True object teaching should not be confined to "object lessons."

14. It is an excellent practice to assign an object for home study occasionally. The results of the children's investigations should of course be reported on paper.

15. One of the simplest methods for inducing young children to study nature in her processes as well as her results, is to place peas or other seeds in a glass containing water, so that the pupils may watch the stages of growth.

Lecture X.

History.

I. *Aims in Teaching History.*

1. To show the nature and value of historical knowledge.

2. To guide pupils in finding its treasures.

II. *Method of Teaching History.*

1. Topical better than chronological.

2. Classify events in connection with the great departments of national life, instead of associating them merely with the reigns of monarchs.

3. Topics: Dr. Arnold suggests, "race, language, institutions and religion." The history of most countries may be subdivided into (*a*) wars, civil and foreign; (*b*) the constitution; (*c*) the church; (*d*) progress of the people, commercially, socially, educationally; (*e*) literature; (*f*) notable people.

III. *Plan of Teaching History.*

1. In one lesson give a general sketch of the whole history to be taught, and divide it into its great development periods, fixing the date of the commencement of each period.

2. Teach the history of each period, beginning with the first.

3. Teach independently the events connected with each topic.

4. Sketch the history connected with each topic successively through all the periods, after having taught each period independently.

5. Show the advantages of this plan (*a*) in giving connected ideas regarding the progress made in each department of national life, (*b*) in facilitating the remembrance of historical, facts in their relation to their effects; and (*c*) in affording. natural and incidental reviews of the history already taught.

IV. *Training Pupils to Study History.*

1. This is the most important of the teacher's duties in dealing with this subject. History should be learned chiefly after school life has ended.

2. Assigning lessons wisely is the means for training to study.

3. Do not assign *answers* (notes) to be committed to memory.

4. Assign *questions*, and let pupils prepare answers by reading their histories.

5. All questions should not relate merely to isolated facts or dates.

6. They should compel a comparison of facts and exercise the pupils' judgment.

7. A good outline or plan of the lesson is better than questions for advanced classes.

V. *General Suggestions.*

1. Chronology is not history.

2. Epoch men and women should receive a large share of attention.

3. Striking scenes and great events should be vividly pictured to awaken interest.

4. Pupils should write historical abstracts and biographical sketches for compositions.

Lecture XI.

Writing.

The following method is recommended:—

I. Illustrate on the blackboard—

(*a*) The formation of the elements or formative lines entering into any letter, and the mode of combining these lines either angularly or by shorter turns.

(*b*) The slant of the *main* and the *connecting* lines.

(*c*) The relative width of each letter and of its parts.

(*d*) The relative height of the different letters, viz.:—*body*, *stem* and *loop* letters.

II. Make a well-formed letter upon the blackboard as a type or model, and then make a number of imperfectly formed ones, intended to illustrate anticipated faults. Ask pupils to point out faults as to shape of elements; junction of parts; width between parts or between letters; relative height or length of parts. Ask pupils to suggest the mode of correction; pupils failing, teacher should give the necessary aid and show them how to avoid similar errors.

III. Teach pupils how to combine (*a*) several letters of the

same kind; (*b*) several letters of different kinds: lead pupils to observe the horizontal space occupied by each letter when thus combined. Impress the subject of letter-spacing upon the mind by a lively concert drill, several pupils writing on blackboard while the others are writing on slates or on paper.

IV. Let each letter be introduced by a criticism of the faults seen in letters occurring in the lesson, made then and there, either by teacher or by a few pupils.

V. The order in which the small letters should be taught is somewhat as follows:—

(*a*) *i, u, w, n, m, v, x.*

(*b*) *a, e, c, o, r.*

(*c*) *a, d, g, q, t, p.*

(*d*) *l, b, h, k, f, j, z, y.*

VI. Pay due attention to position of body, pen and paper while writing, and let each copy or writing lesson be supplemented with suitable exercises on practice-paper to secure freedom of execution.

MUSIC.

Follow the course indicated in the Teacher's Manual in the First Reader of the Normal Music Course.

Teach the students as a class of children, supposing them to know nothing of the subject.

Spend four to six lessons on the work suggested on pages V. and VI., before taking up "Singing at Sight."

Continue weekly practice of breathing exercises throughout the term.

Do not try to teach the students *all* the songs and exercises. Select a few in each key, then proceed to the next, so that a general idea of all the work in the First Reader may be obtained in the necessarily limited time.

In nearly all classes of adults beginning the study of vocal music some will be found who have defective voices, or very little sense of pitch. In these cases the teacher should encourage the student to not only enter heartily into the work but make an effort by special practise to overcome the difficulty.

During the first part of the term it will be advisable to occasionally give short lessons, in the presence of the students, to classes of children from the Model School. This is desirable for the purpose of demonstrating the practicability of the system, and to show how interesting the study of music may be made to children.

Two months should be sufficient to go over the work contained in the First Reader.

The remainder of the session should be devoted to practise lessons by the student, criticism on such lessons, and a short review.

DRILL AND CALISTHENICS.

I. *Benefits.*

1. To the health.
2. To the figure.
3. Improved carriage.
4. Aid in discipline.

II. *Rules for Teaching.*

1. Apply the same principles as in teaching any other subject.

2. Objective illustration is better than the most accurate verbal explanations.

3. Repeating the words of a drill book to a class is not better teaching than repeating the words of a grammar would be.

4. Study the words carefully to learn precisely what the movements are, but teach chiefly by action and not by words.

5. When you have done one step of a motion or exercise before the pupils, question them closely about what you have done, before they attempt to imitate you.

6. Only do or describe one step in a motion or excercise at a time, and do not pass on until that step has been performed correctly.

7. It is of paramount importance that errors should be carefully corrected; absolute accuracy at the beginning will save much trouble afterwards.

8. Errors may best be corrected by doing the motion in both the right and the wrong way, and asking the pupils to describe the difference between them.

9. Be prompt, decided and energetic in conducting drill and calisthenic exercises.

10. Speak in a loud tone, but not in a high key, in giving commands.

11. It is of great importance to be accurate and uniform in giving the words of command.

12. All light calisthenic exercises should be done in time with singing.

DRAWING.

I. *Kind.*

Industrial.

II. *Advantages.*

1. Cultivation of the taste.

2. Training of the hand.

3. Training of the mental powers, observation, comparison, etc.

4. Practical utility in every walk of life.

III. *How to begin to teach Drawing.*

1. Begin with the principles of *symmetry*, and teach them *objectively.*

2. This may be done analytically or synthetically; analytically by showing a small piece of oilcloth or carpet, and allowing the pupils to find the parts that correspond in shape and colour; synthetically by making patterns with different kinds of leaves or other objects (four of each kind), and placing those of the same kind in opposite positions, with the stems towards the centre. (These patterns may be made before a class by fastening the leaves, etc., to a piece of board with small tacks. It is best to place a small round object, a flower for instance, in the centre.) The great fundamental law of symmetry, or harmony of opposites, is thus learned very easily.

3. Let pupils form patterns by laying leaves, small flowers, etc., etc., on their desks, and making the opposite parts with similar leaves, etc. (The roadside will supply plenty of material for this objective work.)

4. Let them copy on their slates, with pencils, the simple patterns they make with objects.

5. Show how they may fill a square with such symmetrical patterns.

6. In drawing such patterns let junior pupils use for construction, or guide lines, small squares checkered over the large one in faint lines.

7. Vary the position of the square (*a*) diameter upright; (*b*) diagonal upright; (*c*) two concentric squares one with diameter upright, the other with diagonal upright, etc., and let the pupils fill each time with symmetrical patterns.

8. When sufficient time has been devoted to the square, show how to make other geometrical figures, and how to fill them with symmetrical patterns. Be sure to explain new geometrical figures, only when you need to use them.

NOTE.—This work should be done on slates, by pupils in First and Second Books, and beyond this the teacher should be guided by the books recommended by the Educational Department.

THE ART OF QUESTIONING.

I. According to the purpose for which they are used, question are:

1. Tentative or preliminary.

2. Teaching or developing (Socratic).

3. Testing in (*a*) repeating, (*b*) recalling, (*c*) reviewing.

II. According to the method of asking them, questions may be divided into:

1. Those requiring simultaneous answers.

2. Those requiring individual answers.

3. Elliptical; sentences with parts omitted, to be filled in by the pupils.

4. Suggestive; indicating the answer by form or inflection.

5. Alternative; answered by "yes" or "no," "old" or "young," "large" or "small," etc.

NOTE.—Classes 3, 4 and 5 should be used sparingly. Simultaneous answers may be used in repeating, or recalling, and then chiefly in connection with elliptical and alternative questions.

III. *Rules for questioning.*

1. Do not ask questions in rotation.

2. Do not name the pupil who is to answer a question until after it has been stated.

3. Do not indicate by pointing, looking, or in any other way, which pupil is to be called up to answer a question until after it has been stated.

4. In review or repetition questions, do not wait an instant for the answer.

5. When a question demands independent thought, wait a sufficient time after stating it, before naming a pupil to answer it, but pass rapidly to some one else if the first named cannot answer.

6. Give easiest questions to backward and diffident pupils.

7. Give most questions to backward and diffident pupils.

8. Do not form the habit of repeating the answers given.

9. Give a question promptly to an inattentive pupil.

10. State every question to the whole class, and then call on one pupil to answer it.

SCHOOL ORGANIZATION.

This subject includes the suitability and adaptability of everything which has to do with the school work.

Proper Organization—includes :—

1. School-room and its appointments.
2. Apparatus and books.
3. Classification of pupils.
4. Apportionment of time and subjects.
5. Registration.

School-Room.

1. Should be substantial and commodious, properly heated and ventilated.

2. Seats should not face windows.

3. Should be kept clean and decorated.

4. Should be furnished with hooks, maps, globes, blackboards, crayons, erasers, numerical frame, tablet lessons, weights and measures, thermometer, clock, etc.

Text-Books.

Pupils should be furnished with all necessary books, and teacher should have a full set of text books used in school.

Classification

Is the grouping of pupils for school work according to age, ability, and scholarship.

The following points must be considered :

I. Uniformity.—The several branches should be kept as nearly abreast as possible. Pupils should be so classified as to give the greater part of their time to subjects in which they are deficient.

II. Adaptation.—Every pupil should be placed in the class best suited to his ability and advancement.

III. Age, Ability, and Scholarship.—Other things being equal, older pupils should be classed higher than younger ones, and strong, bright pupils, higher than delicate, dull ones.

4. Reading and Arithmetic.—These subjects may be taken as a basis for classification. In ungraded schools the classification should be sufficiently flexible to provide for the circumstances of the school or pupil.

5. Number of Classes.—As few classes should be formed as is consistent with good grading. Numerous classes fritter away the time.

6. Size of Classes.—Medium sized classes are best. Very large classes prevent individual teaching. Small classes make it difficult to sustain interest among the pupils.

Time Table.

It must be adapted to the school. It cannot be drafted till the school is classified. It must provide :—

1. Specific employment for each pupil during the entire school day.
2. Adequate time for each recitation.
3. Proper rests and recess.
4. Due attention to each pupil.
5. Proper distribution of studies of the same kind.
6. Alternation of study and recitation.

Registers.

Kinds—Daily and Class. The use of each should be explained, and copies placed in the hands of the students.

SCHOOL GOVERNMENT.

This subject includes all the means employed to accomplish the best results with the least waste of time and labour.

Objects to be secured.

Order, attention, diligence, prompt and cheerful obedience, a healthy tone and good habits among the pupils, the correction and prevention of misdemeanor.

Qualities necessary in the teacher.

System, energy, vigilance, will-power, self-control, confidence, ability to punish judiciously, culture, heart-power, teaching power, managing power.

The following hints may be given:

1. Have but few rules and abide by them.
2. After giving an order wait to see that it is obeyed.
3. Your language should not imply that your pupils desire to violate your orders.
4. Commands should be given in a quiet, firm tone, without shouting or repetition.
5. Seldom reprove.
6. Keep your pupils employed.
7. If necessary, explain the reason for your command.
8. School government should be *regular, natural, self-sustained, unobtrusive, kind and just.*

Class recitation.

1. As to pupils. Proper mode of advancing to position; position itself; supply of materials—books, slates, pencils, etc.; mode of holding books and slates; attention; dismissal from the school-room.

2. As to teacher. Position of teacher, whether sitting or standing; manner during recitation; animation; attention; division of attention between class and other pupils; economy of time; recitations should not encroach upon each other; should have some specific object; every error should be corrected; lessons should be made interesting; frequent reviews necessary; mode of assigning subsequent lesson.

Motives to be placed before children.

Perception of utility, emulation, love of approbation, duty of obedience to constituted authority. Rewards,—as changing places, appointment to offices of trust, merit cards, certificates, prizes, etc. Punishments,—as censure, demerit marks, corporal punishment, suspension, expulsion.

Offences.

Give hints on how to deal with the following:—(1) want of punctuality; (2) irregularity; (3) truancy; (4) indifference to study; (5) neglect of home work; (6) quarrelling; (7) whispering; (8) copying; (9) tattling; (10) lying; (11) communicating with other pupils; (12) use of bad language.

Rules for the infliction of punishment.

1. Punishment should be reformatory, not vindictive.
2. Should not be administered in anger.
3. Teacher should not manifest pleasure.
4. Should be a natural consequence of the offence.
5. Age and health of the offender must be considered.
6. Should be deliberate and seldom inflicted.
7. Should not excite public sympathy.

SCHOOL LAW.

General Hints.

Form of applying for a situation as teacher; agreement with trustees; must be signed by a majority; what constitutes its validity; its reservations; visiting days; holidays; absence on account of sickness; agreement how dissolved; resignation; suspension of certificate; salary how payable; school grants how paid; on what conditions can teachers claim pay for holidays.

School Room Duties.

Must be at school certain time before opening; opening religious exercises; who are exempted from attending, and on what conditions; authority of the teacher as a public officer; no person to interfere with him in the discharge of his duty; power to suspend pupils and for what offences; limitations of this power; expulsion; on what grounds legal duty in regard to school property; out-premises, fences, well, and playgrounds; fires and sweeping; school reports; registers.

Duties as to Pupils.

Instruction according to programme; constant employment of his time; discipline, nature of; when too severe; kind of government desirable; merit cards; absence from school; presents; subscriptions; time table; quarterly examinations; visitors' book; visitors.

Duties of Pupils.

Punctuality; cleanliness and good conduct; leaving before closing; absence; excuses; absence from examination; going to and from school; supply of books; property injured; contagious diseases; effects of expulsion; certificate of good conduct.

HYGIENE.

The Teacher.

How to preserve his health; hours for study; rest; recreation; sleep; dietetics.

The Pupil.

Under this chapter discuss the brain and nervous system. Lessons should be suited to the age and physical strength of the child; danger of over study; when should home lessons be relaxed; necessity for variety; recreations, etc.

The Spinal Column.

Discuss the Anatomy and Physiology of the spinal column, chest, lungs, heart, stomach, and show the evil effects of leaning over a desk, stooping, walking on the toes, etc.

The Eye.

Discuss the Anatomy and Physiology of the eye; how to light a school room; how to regulate lights by means of blinds; diseases of the eye caused by bad lighting; how to remedy; near-sightedness; how to place pupils with reference to blackboards; windows; slate; copy, etc.

Heating.

How to prevent draughts; where to place the stove; how to regulate heat; thermometer, and where to hang it.

Ventilation.

Importance of; how to secure when not provided for in the erection of the school building; simple way of ventilating by doors; windows; effects of bad ventilation; symptoms of, etc.

The Play Ground.

Dangerous games; what to prohibit and what allow; winter games for boys; winter games for girls: summer games; drill, value of.

School Accidents.

How to deal with fainting, bleeding at the nose, broken limbs, severe cuts or bruises, drowning.

Infectious Diseases.

How to detect whooping cough, measles, scarlet fever, diphtheria, skin diseases; care of outhouses.

TEXT BOOKS.

The following text books are compulsory:—1. A complete set of all the text books prescribed for use in the first four classes. 2. Baldwin's Art of School Management.

Recommended.—1. McLellan's Mental Arithmetic, Part I. 2. Normal Music Course, Part I. 3. Hughes' Drill and Calisthenics. 4. Whitneys' Elementary Lessons in English, (Teachers' edition). 5. Ayres' Orthoepist.

EXAMINATIONS.

The examination papers will be based on the syllabus of lectures and text books recommended. In Music, Drill and Drawing no papers will be issued by the Department. Marks may be awarded by the teachers in charge of these special subjects, and in such cases the Board of Examiners will see that due credit is given in the certificates for the attainments of the teachers in training.